Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Canceled)

2. (Currently Amended) The method of claim [[1]] 11 wherein handling packets further comprises:

handling packets that arrive at the regulator based on a current number of tokens present in the token bucket.

3. (Original) The method of claim 2 wherein handling packets further comprises:

handling a particular packet that arrives at the regulator in a normal fashion when the current number of tokens present in the token bucket is sufficient, otherwise, handling the particular packet that arrives at the regulator in a special fashion.

4. (Original) The method of claim 3 wherein the special fashion of packet handling is to drop the packet.

5. (Original) The method of claim 3 wherein the special fashion of packet handling is to assign a classification to the packet.

6. (Original) The method of claim 2 wherein handling packets further comprises:

handling a particular packet that arrives at the regulator based on the current number of tokens present in the token bucket by assigning a classification to the particular packet based on the current number of tokens present.

7. (Original) The method of claim 6 wherein the assigning of the classification takes place in accordance with a predetermined relationship between number of tokens present in the token bucket and appropriate classification.

8. (Original) The method of claim 6 wherein the assigning of the classification takes place in accordance with a probability mass function that determines the probability mass for each classification based on number of tokens present in the token bucket.

9.-10. (Canceled)

11. (Previously Presented) A method of traffic regulation in a packet communication network, the network including a traffic regulator for regulating traffic at the packet level, the traffic regulator including a bucket mechanism, the bucket mechanism including a token bucket associated with a subscriber, the token bucket being configured to receive new tokens at a fill rate and configured with a bucket depth, the token bucket determining conformance of network traffic destined for the subscriber to allow action to be taken in a presence of non-conforming network traffic, the method comprising:

handling packets destined for the subscriber that arrive at the regulator in accordance with the token bucket configuration for the token bucket associated with the subscriber, including determining conformance of network traffic destined for the subscriber;

measuring a demand placed on the packet communication network by the subscriber;

dynamically adjusting the token bucket configuration for the token bucket associated with the subscriber based on the demand to affect the way that packets arriving at the regulator are handled; and

wherein the bucket mechanism includes a second bucket arrangement associated with the subscriber wherein packets that arrive at the regulator are further handled in accordance with the second bucket arrangement, and wherein measuring the demand further comprises monitoring the second bucket arrangement as packets are handled to measure the demand.

12.-29 (Canceled)

30. (Currently Amended) The device of claim [[29]] 39 wherein handling packets further comprises:

handling packets that arrive at the regulator based on a current number of tokens present in the token bucket.

31. (Original) The device of claim 30 wherein handling packets further comprises:

handling a particular packet that arrives at the regulator in a normal fashion when the current number of tokens present in the token bucket is sufficient, otherwise, handling the particular packet that arrives at the regulator in a special fashion.

32. (Original) The device of claim 31 wherein the special fashion of packet handling is to drop the packet.

33. (Original) The device of claim 31 wherein the special fashion of packet handling is to assign a classification to the packet.

34. (Original) The device of claim 30 wherein handling packets further comprises:

handling a particular packet that arrives at the regulator based on the current number of tokens present in the token bucket by assigning a classification to the particular packet based on the current number of tokens present.

35. (Original) The device of claim 34 wherein the assigning of the classification takes place in accordance with a predetermined relationship between number of tokens present in the token bucket and appropriate classification.

36. (Original) The device of claim 34 wherein the assigning of the classification takes place in accordance with a probability mass function that determines the probability mass for each classification based on number of tokens present in the token bucket.

37.-38. (Canceled)

39. (Currently Amended) A packet-level device for traffic regulation in a packet communication network, the packet-level device including a traffic regulator for regulating traffic at the packet level, the traffic regulator including a bucket mechanism, the bucket mechanism including a token bucket associated with a subscriber, the token bucket being configured to receive new tokens at a fill rate and configured with a bucket depth, the token bucket determining conformance of network traffic destined for the subscriber to allow action to be taken in a presence of non-conforming network traffic, the packet-level device being programmed to:

handle packets destined for the subscriber that arrive at the regulator in accordance with the token bucket configuration for the token bucket associated with the subscriber, including determining conformance of network traffic destined for the subscriber;

measure a demand placed on the packet communication network by the subscriber;

dynamically adjust the token bucket configuration for the token bucket associated with the subscriber based on the demand to affect the way that packets arriving at the regulator are handled; and

wherein the bucket mechanism includes a second bucket arrangement associated with the subscriber wherein packets that arrive at the regulator are further handled in accordance with the second bucket arrangement, and wherein measuring the demand further comprises monitoring the second bucket arrangement as packets are handled to measure the demand.

40.-56. (Canceled)